

Project: One-Sample t-Test on Mean Name: _____

(You may use this document to submit your assignment by typing in your answers.)

Adam claimed that his average morning pulse rate is 65. A group of his friends do not think so and took a random sample of 12 morning pulse rates from Adam on 12 randomly selected days. The data is the following: 69, 66, 67, 68, 66, 72, 75, 68, 68, 66, 68, 69.

The following link has an SPSS example for performing the one-sample t-test:

<http://gchang.people.ysu.edu/SPSS/SPSSOneSampleTTest.pdf>

The following link has an SPSS instruction video for performing the one-sample test:

<http://gchang.people.ysu.edu/SPSS/TTestOneMean.html>

The objective of this research is to see if **Adam's average morning pulse rate is different from 65 per minute**. (Perform a one-sample t-test at 5% level of significance.)

Use the pulse rates data above to answer the following questions:

1) State the null and the alternative hypotheses:

H_0 : _____

H_a : _____

2) Is the normality assumption valid? (Verify this using the p-value of the normality test.)

3) What is the value of the t-test statistic: _____

4) What is the value of the p-value of the test: _____

5) Would you reject the null hypothesis and why?

6) Draw a conclusion for this test:

9) If the objective of this research is to see if Adam's average morning pulse rate is higher than 65 per minute, what would be the hypotheses, the p-value of the test and what would be your conclusion for the test? ($\alpha = 5\%$)

H_0 : _____

H_a : _____

t-test statistic: _____ p-value of the test: _____

Conclusion: